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**Analysis of Capabilities of Organizations in the Areas of
Responsibility for U.S. Commands of the United States Navy to
Humanitarian Assistance and Disaster Relief**

30 September 2015

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Abstract

The United States Navy (USN) provides substantial humanitarian assistance and disaster relief (HADR) to rest of the world due to its unique capabilities. Coupling these capabilities with those of Non-Government Organizations (NGO) would enhance the capacity of both the US military and the NGOs during disaster relief efforts. Such coordination between the two sectors in several significant areas would add to the efficacy and efficiency of the overall HADR operationby saving money for the USN. Humanitarian Assistance and Disaster Relief (HADR) operations are one of the core capabilities for US Navy (USN) as described in A Cooperative Strategy for 21st Century Seapower. In this research, we plan to identify the NGOs in the area of responsibility (AOR) of three US Commands that respond to disasters and organize the data of their capabilities and limitations. We provide financial analysis in terms of financial efficiency defined as percent expenses related to services out of total expenses. The capabilities analysis is based on Sphere Project criteria to inform the USN about the capabilities of the players in HADR.

Keywords: HADR, NGO, efficacy, efficiency



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Disclaimer: The views represented in this report are those of the author and do not reflect the official policy position of the Navy, the Department of Defense, or the federal government.



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Table of Contents

Introduction	1
Efficiency of NGOs.....	3
Efficacy of NGOs	10
Summary and Future Research.....	17
References	19



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List of Figures

Figure 1.	Total Economic Damage Caused by Reported Natural Disasters between 2000 and 2014 (Adapted from Guha-Sapir, Hoyois, & Below 2013)	3
Figure 2.	Revenues of the Top 10 NGOs (in US\$ Millions)	5
Figure 3.	Revenue-Expenses and Financial Efficiency for the Top 10 NGOs .	6
Figure 4.	Revenue-Expenses sorted by Financial Efficiency High to Low.....	7
Figure 5.	Revenues of the Next Tier NGOs.....	8
Figure 6.	Revenue-Expenses and Financial Efficiency for the Next Tier NGOs	9
Figure 7.	Revenue-Expenses sorted by Financial Efficiency High to Low.....	10
Figure 8.	Some Disaster Traits (Source: Apte et al. 2013)	11
Figure 9.	Relief Requirements(Source: Apte et al. 2013)	12
Figure 10.	Core Competencies and Capabilities of Organizations that Participate in Humanitarian Operations.....	12
Figure 11.	Four Competencies of the Sphere Project	13
Figure 12.	Sphere Scorecard for Top 10 NGOs	17
Figure 13.	Sphere Scorecard for Next Tier of NGOs.....	17



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List of Tables

Table 1.	Revenue-Expenses and Financial Efficiency of the Top 10 NGOs ..	5
Table 2.	Revenue-Expenses and Financial Efficiency of Next Tier NGOs	8
Table 3.	Water Supply, Sanitation, and Hygiene Promotion (WASH)	14
Table 4.	Food Security and Nutrition.....	14
Table 5.	Shelter, Settlements, and Non-food Items	14
Table 6.	Health Action.....	15
Table 7.	Sphere Scorecards of the Top 10 NGOs	15
Table 8.	Sphere Scorecards of the Next Tier of NGOs	16



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Analysis of Capabilities of Organizations in the Areas of Responsibility for U.S. Commands of the United States Navy to Humanitarian Assistance and Disaster Relief

Introduction

The United States Navy (USN) provides substantial humanitarian assistance and disaster relief (HADR) to the rest of the world due to its unique capabilities. These HADR services, coupled with the capabilities of non-government organizations (NGOs), enhance the capacity of both the U.S. military and the NGOs during disaster relief efforts. However, improved coordination between the two sectors in several significant areas would improve both the effectiveness of the overall HADR (Apte & Yoho, 2012) and its efficiency by saving money for the USN. Humanitarian assistance and disaster relief operations are one of the core capabilities for the USN, as described in *A Cooperative Strategy for 21st Century Seapower* (U.S. Navy, 2015). In this research, we identify the NGOs in the area of responsibility (AOR) of three U.S. commands that respond to disasters and analyze their capabilities and limitations. We provide financial analysis and operational analysis based on Sphere Project criteria to inform the USN about the capabilities of the players in HADR.

Humanitarian assistance and disaster response operations are increasingly important and require the Department of Defense (DoD) to collaborate with potentially dozens of NGOs to provide effective relief (Apte, 2009; Under Secretary of Defense for Policy, 2009). Unfortunately, coordination and collaboration is lacking in these resulting capability networks, especially in early phases of the response effort (Apte & Yoho, 2012). By identifying capabilities and financial efficiencies of potential partner NGOs, DoD decision-makers can compile a more effective capability package that reduces redundant services and provides a more cost-effective response effort.

Over the last few decades, an international humanitarian network has steadily taken form that brings together unique resources and capabilities of United Nations agencies, government departments, NGOs, civil groups, businesses, and military organizations. One such military organization is the USN. As the USN increases the number of formal HADR missions it executes, the way in which it executes responses depends significantly on the capabilities of the players involved in HADR.



By leveraging the capabilities and managing the limitations of each NGO, the commander is able to provide a more effective and efficient response to HADR within an area of responsibility. Therefore, we believe this analysis will be beneficial to the USN before the humanitarian operations are launched. In addition, this project addresses the underlying issues of communication and collaboration among government and non-government organizations (Government Accountability Office [GAO], 2010). These limitations prevent organizations from efficiently allocating resources, resulting in slower responses, and sometimes in a duplication of effort responding to a disaster. The DoD has a mandate to assist in disaster responses worldwide. This is now considered a directed mission per DoD Directive 5100.46 (DoD, 2012) in support of the United States Agency for International Development (USAID) and the Office of Foreign Disaster Assistance, making it essential for the combatant commanders in U.S. commands to understand how they fit into “a carefully coordinated deployment of military and civilian, public and private U.S. and international assets” (Combined Joint Operations from the Sea Centre of Excellence [CJO SCOE], 2011). As part of this coordinated effort, it is paramount that the combatant commanders have a clearer understanding of the capabilities and assets of the enabling partners participating in the humanitarian response.

In this research, we study the major NGOs participating in HADR operations across three separate areas of responsibility of the commands: Pacific Command (PACOM), Southern Command (SOUTHCOM), and European Command (EUCOM). We base our report on the findings from Daniels (2012), Nguyen and Curley (2013), Harper, Koelkebeck, and Fitz-Gerald (2013), and Earnest, Smith, and Stark (2014) that resulted from the investigations of these organizations using efficiency and effectiveness criteria. Efficiency criteria focus primarily on financial stewardship and resource allocation, whereas effectiveness criteria focus on organizational capabilities. We believe future analysis will help commanders coordinate more effectively the capability network of government organizations and NGOs to perform HADR operations.

In the following section and subsections, we organize the data for analyzing efficacy of NGOs based on their organizational capabilities and efficiency based on their financial status and allocation of budgets. The objective is to provide background for future studies to assess the capabilities and competencies and analyze the financial data to determine mission efficiency. This analysis will help evaluate how well an NGO is able to provide mission services while remaining financially viable. The NGOs we selected are those that play a role in disaster relief efforts in the regions of the Asia Pacific, Southern Americas, and areas under the protection of North Atlantic Treaty Organization (NATO) forces. We chose these regions due to the level of damages caused by natural disasters between 2000 and 2014 (Guha-Sapir, Hoyois, & Below, 2013), as shown in Figure 1.



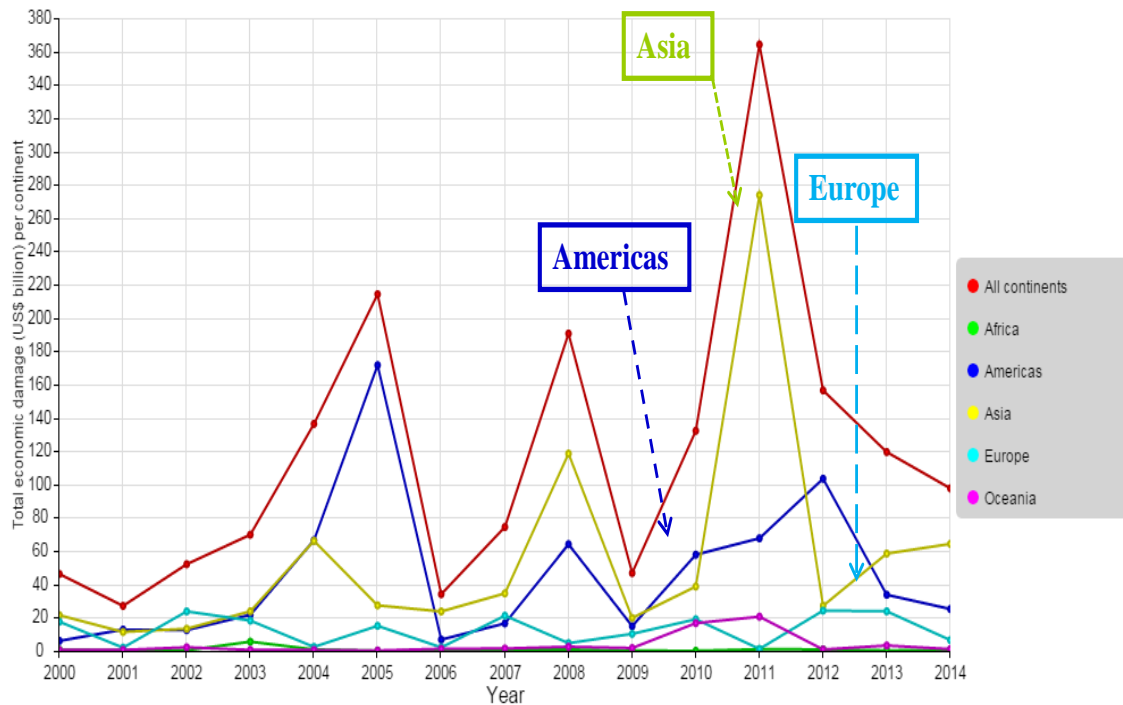


Figure 1. Total Economic Damage Caused by Reported Natural Disasters Between 2000 and 2014 (adapted from Guha-Sapir et al., 2013)

In addition, the NGOs selected in each region represent only a fraction of the total NGOs presently operating in these regions. The time and resources required to study the competencies and limitations of all NGOs operating in even a single region are outside the scope of this project. To narrow the focus within each region, organizations are considered based on their effectiveness, funding, and size. The organizations' total annual revenue is established as the primary determining measure because of a strong correlation between the amount of funding an NGO receives and its capacity to provide (Daniels, 2012). Applying this criterion reduces the number of NGOs being considered to 88; however, the total number of NGOs operating in these regions exceeds 500. Moreover, for preliminary assessment, we further restricted the NGOs under consideration to those with revenue above US\$100 million. Each NGO's financials were self-reported and downloaded from each NGO's respective website.

Efficiency of Non-Government Organizations

In this section, we organize the financial data on all the NGOs in the three regions (Nguyen & Curley, 2013; Earnest et al., 2014) to present revenues in four categories: grants, contributions, investments, and other. *Grant revenue* is any revenue derived from a government source. *Contributions* include both cash and the

dollar value of in-kind services and goods. *Investment revenues* are interest and some gains and losses from investment transactions. *Other revenue* includes service revenue, rental income, gains on sales of assets, and other earned amounts ranging from the sale of t-shirts to those revenues categorized as miscellaneous or other in the financial resource documents. Although other income is secondary for most NGOs, it can comprise a significant portion of an NGO's income and support in some cases.

Expenses are presented in two categories: service-related expenses and supporting services. Service-related expenses are expenses related to the delivery of that NGO's primary mission. This can include salaries, supplies, travel, and other expenses as long as they are used directly in the execution of the mission. Supporting services are all those expenditures that could be considered necessary to run the business and support the provision of the primary mission. This would include expenditures such as home office supplies, accountants, lawyers, management, and fund-raising costs.

The categories were chosen to convey an accurate depiction of the results of operating and program activities. As such, non-operating revenues such as foreign currency exchanges and unrealized gains/losses were omitted from this report because they are essentially unrelated to the normal course of business for a non-profit, and were immaterial in all cases.

We first focus on the top 10 NGOs out of those discussed earlier. Figure 2 presents these NGOs. We use a traditional definition of financial efficiency,

$$\textbf{Financial Efficiency} = \textbf{Service-related expenses/Total expenses},$$

for understanding the efficiency of the NGOs. Table 1 describes the total revenues and total expenses in US\$.



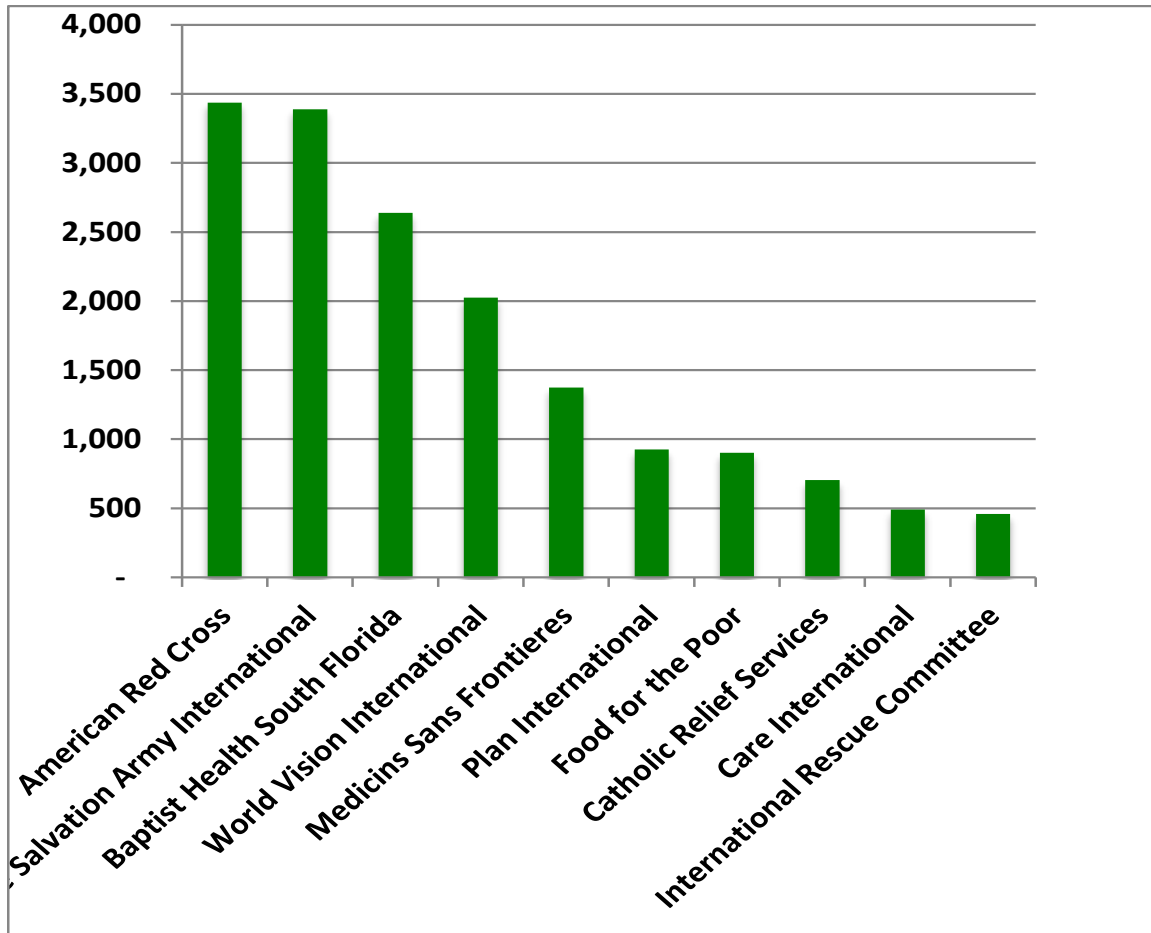


Figure 2. Revenues of the Top 10 NGOs (in US\$ Millions)

Table 1. Revenue-Expenses and Financial Efficiency of the Top 10 NGOs

NGO	Total Revenue US\$ millions	Total Expenses US\$ millions	Service-related Expenses US\$ millions	Financial Efficiency = Service-related Expenses/Total Expenses
American Red Cross	3436	3381	3,055	90.4
The Salvation Army International	3388	3289	2,706	82.3
Baptist Health South Florida	2637	2320	2,240	96.6
World Vision International	2024	1993	1,907	95.7
Mediciens Sans Frontieres	1372	1295	1,039	80.2
Plan International	923	948	727	76.7
Food for the Poor	901	897	859	95.9
Catholic Relief Services	701	732	683	93.3
Care International	490	514	459	89.2
International Rescue Committee	456	453	417	91.9

Figure 3 offers insight into the financial attributes of the top 10 NGOs by comparing total revenues and expenses with financial efficiencies.

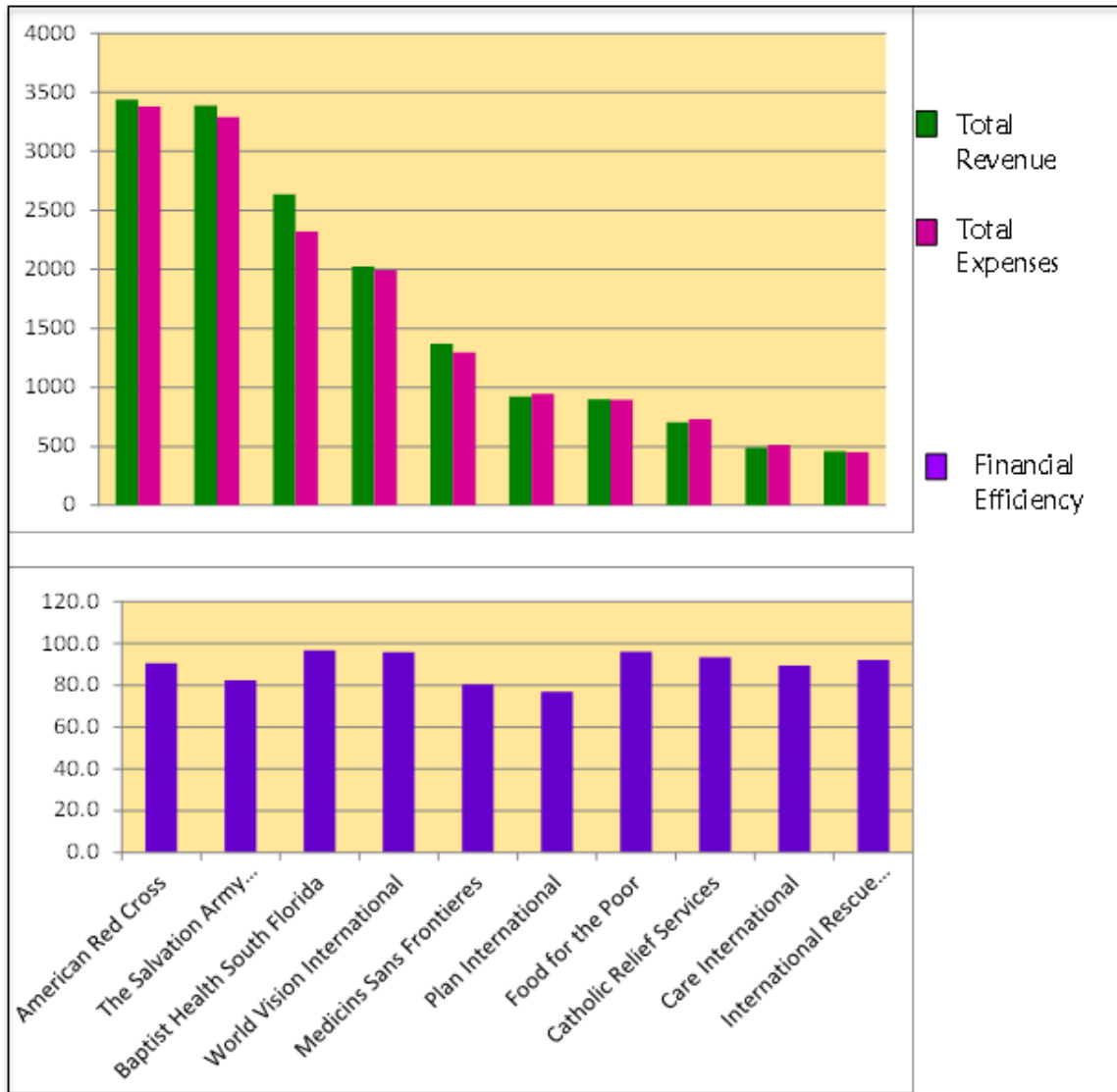


Figure 3. Revenue-Expenses and Financial Efficiency for the Top 10 NGOs

In order to clarify the relation between revenue-expenses and financial efficiency further, we sorted the financial efficiency from high to low, which showed some interesting results (see Figure 4). The organizations with most revenue were not necessarily the ones with most efficiency. Care International and International Rescue are the organizations with lowest revenues in this group. It is interesting to note that their financial efficiency is comparable to those of top few.

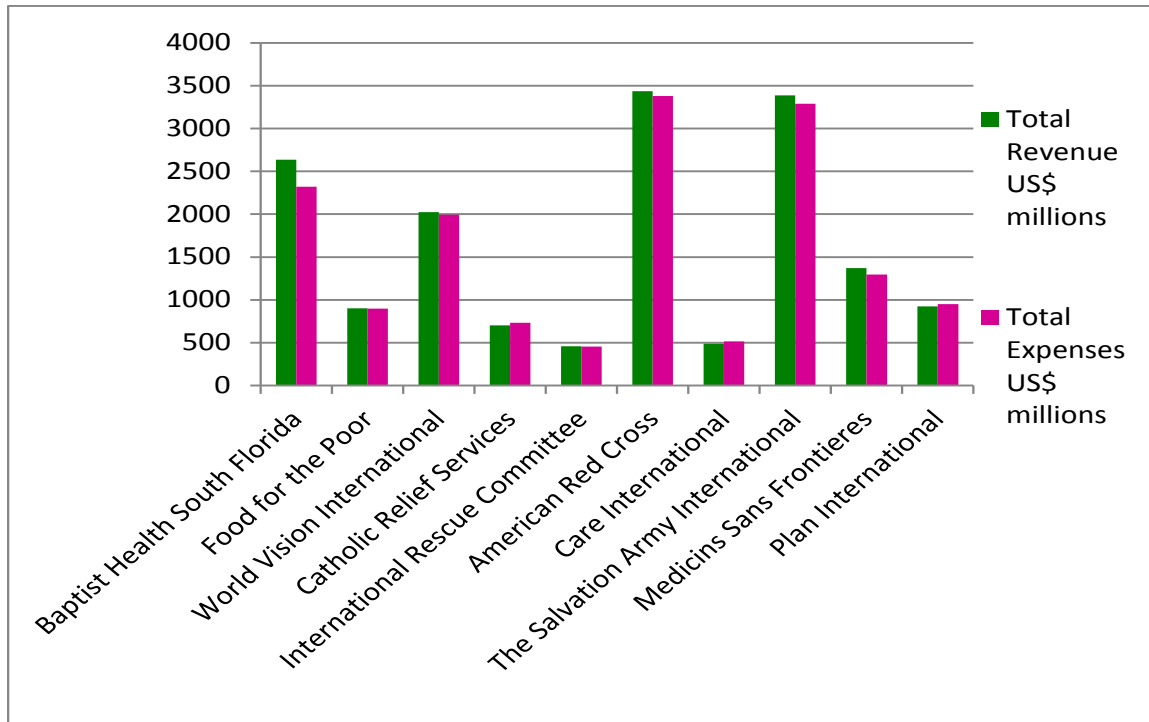


Figure 4. Revenue-Expenses Sorted by Financial Efficiency High to Low for the Top 10 NGOs

We organized the data in similar fashion for the next tier of NGOs that had more than US\$100 million revenue. Figure 5 presents such NGOs. Table 2 describes the total revenues and expenses in US\$.

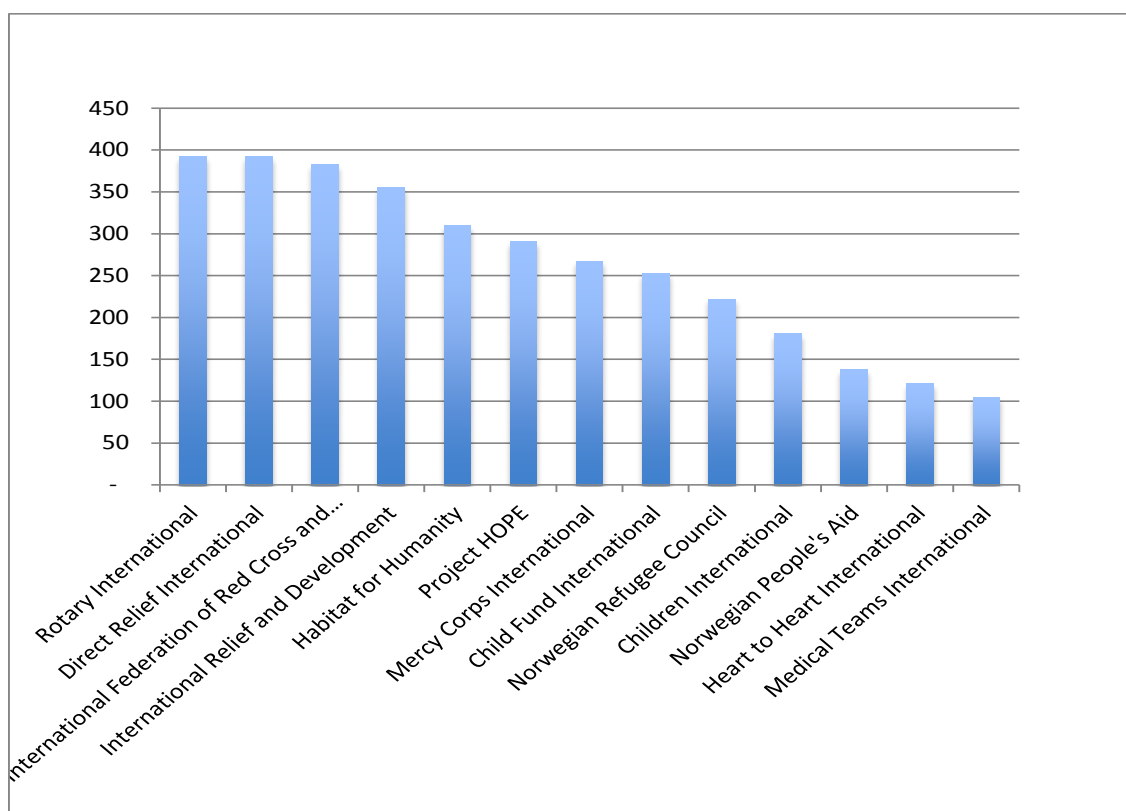


Figure 5. Revenues of the Next Tier NGOs

NGO	Total Revenue US\$ millions	Total Expenses US\$ millions	Service-related Expenses US\$ millions	Financial Efficiency = Service-related Expenses /Total Expenses
Rotary International	392	202	177	87.3
Direct Relief International	392	393	389	99.0
International Federation of Red Cross and Red Crescent Societies	382	403	365	90.6
International Relief and Development	355	350	318	90.9
Habitat for Humanity	310	335	285	85.0
Project HOPE	290	289	277	95.7
Mercy Corps International	267	272	232	85.2
Child Fund International	252	254	208	81.8
Norwegian Refugee Council	222	226	222	98.1
Children International	180	180	150	83.0
Norwegian People's Aid	138	136	126	92.6
Heart to Heart International	121	101	100	98.7
Medical Teams International	104	106	102	96.1

Table 2. Revenue-Expenses and Financial Efficiency of Next Tier NGOs

Figure 6 offers insight into the financial attributes of the next tier 10 NGOs because it lets the reader compare total revenues and expenses with financial efficiencies.

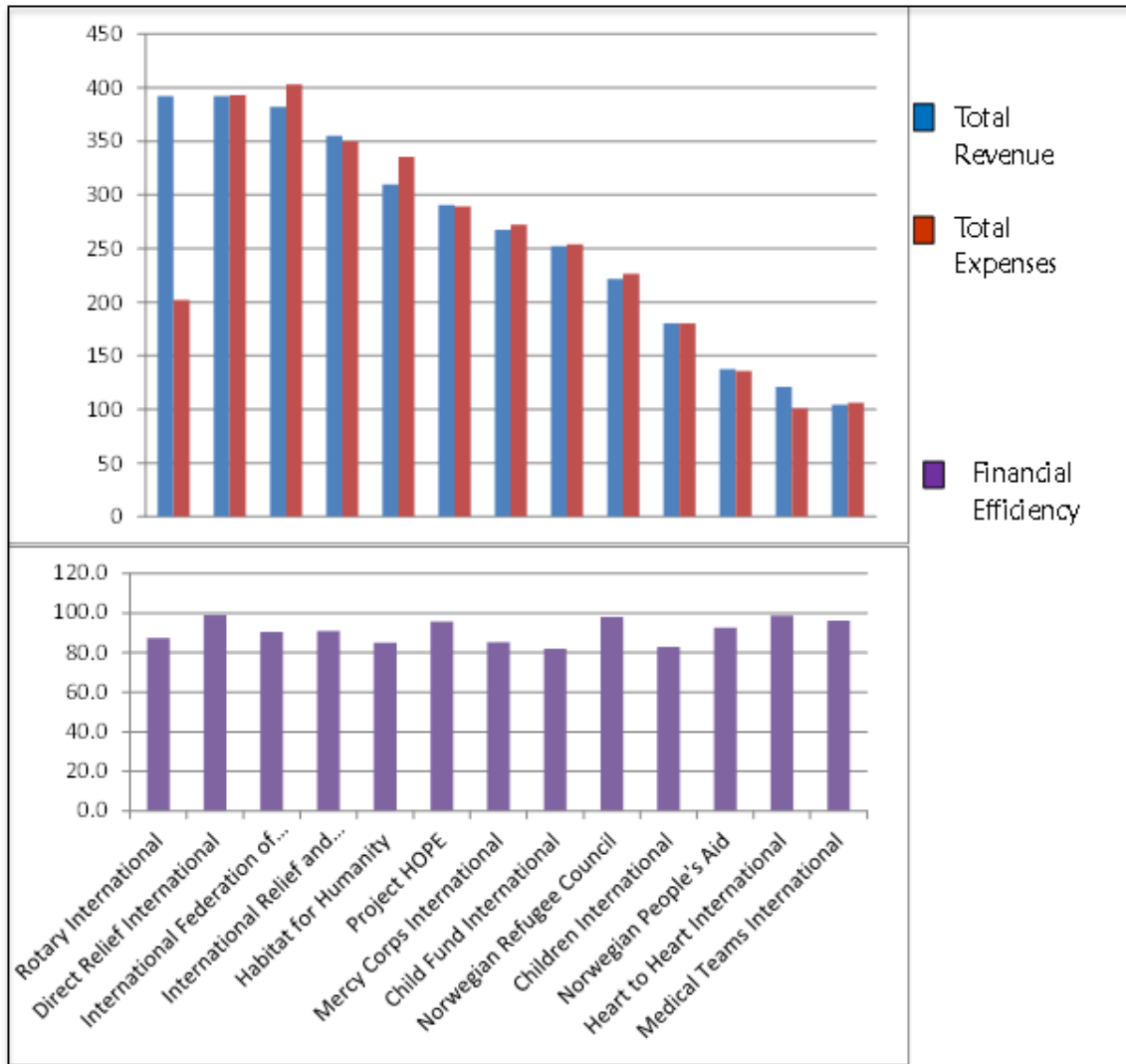


Figure 6. Revenue-Expenses and Financial Efficiency for the Next Tier NGOs

In order to clarify the relation between revenue-expenses and financial efficiency further, we sorted the financial efficiency from high to low, which showed some interesting results (see Figure 7). The organizations with most revenue were not necessarily the ones with most efficiency, except for Direct Relief International. Heart to Heart International and Medical Teams International are the organizations with lowest revenues in this group. It is interesting to note that their financial efficiency is comparable to those of top few.

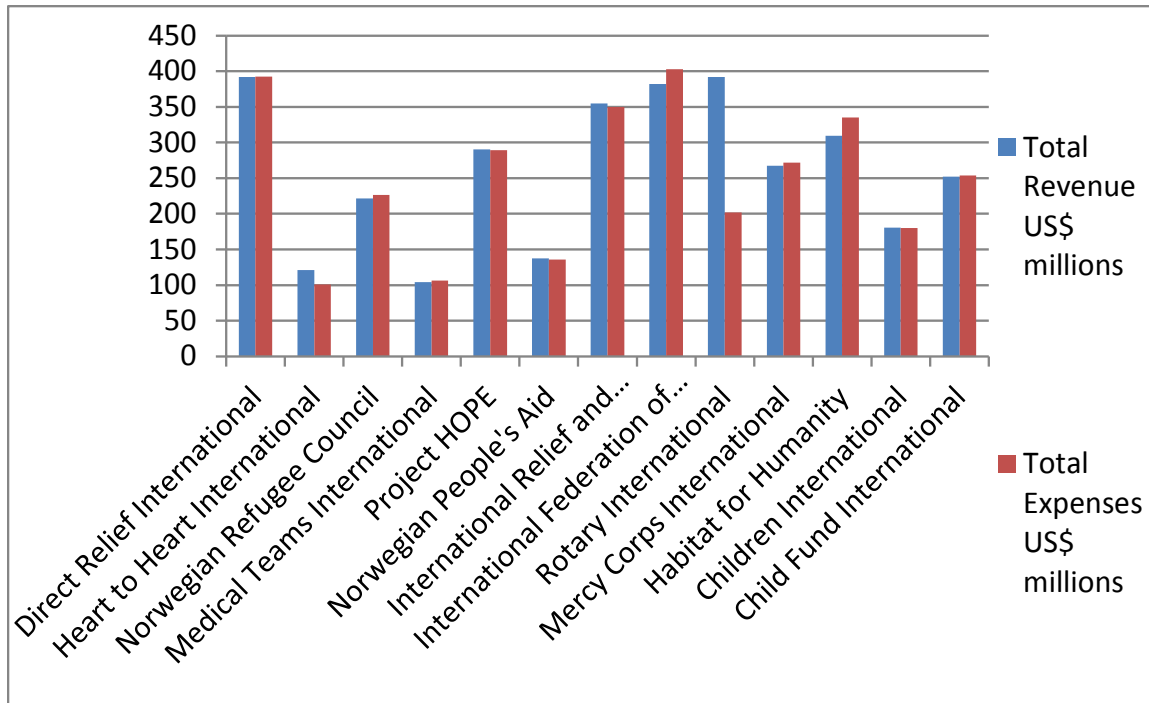


Figure 7. Revenue-Expenses Sorted by Financial Efficiency High to Low
Efficacy of Non-Government Organizations

We provide an explanation of the techniques used to analyze and evaluate the efficacies of the NGOs studied (Ernest et al. 2014; Harper et al., 2013). Our objective in this project is to measure and quantify the capabilities inherent to these organizations.

The DoD chooses to use the Sphere Project criteria for standardization and metrics because of Sphere's "widely known and internationally recognized sets of common principles and universal minimum standards in lifesaving areas of humanitarian response" (The Sphere Project, 2011, p. 5).

Any disaster has certain common traits. Figure 8 describes some of them.

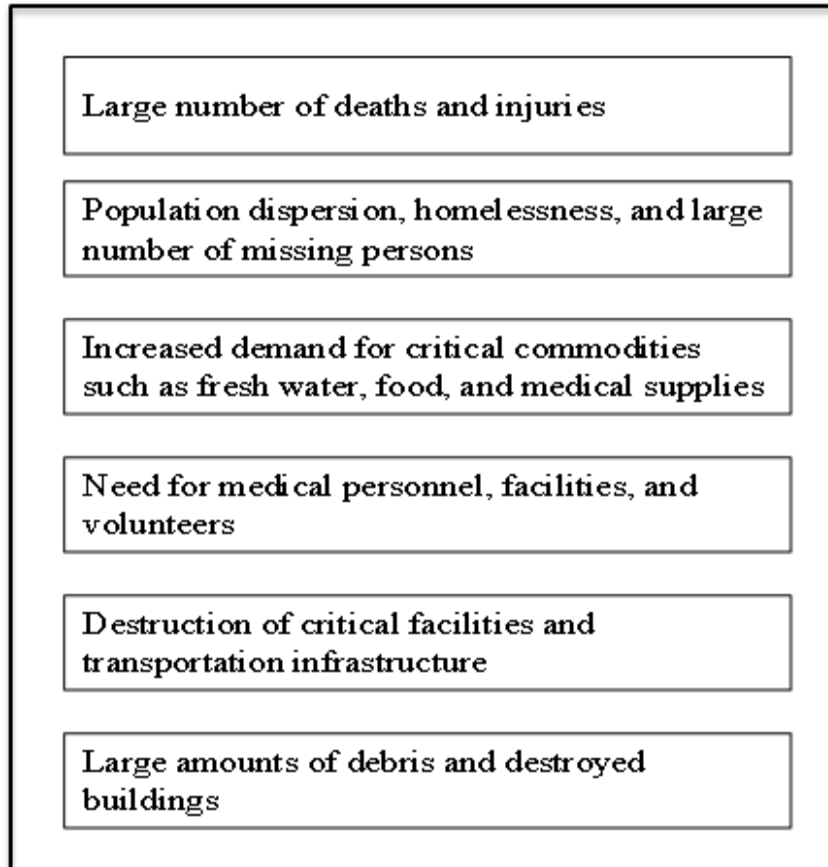


Figure 8. Some Disaster Traits (from Apte, Yoho, Greenfield, & Ingram, 2013)

Certain relief requirements will meet the demand of these traits. Some of them have been described in Figure 9. Some of the core competencies and capabilities of all the organizations that participate in humanitarian operations are shown in Figure 10.

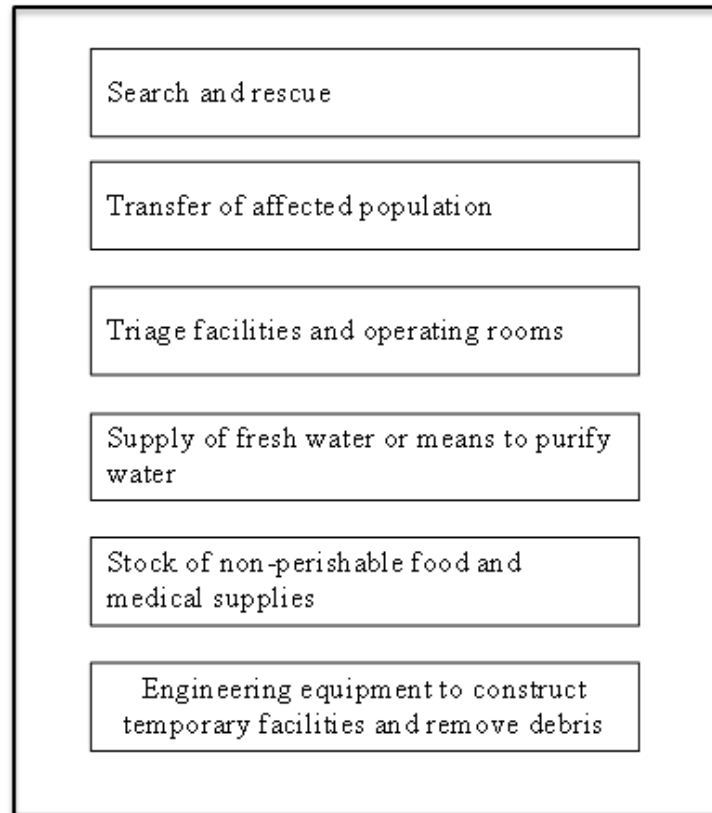


Figure 9. Relief Requirements (from Apte et al., 2013)

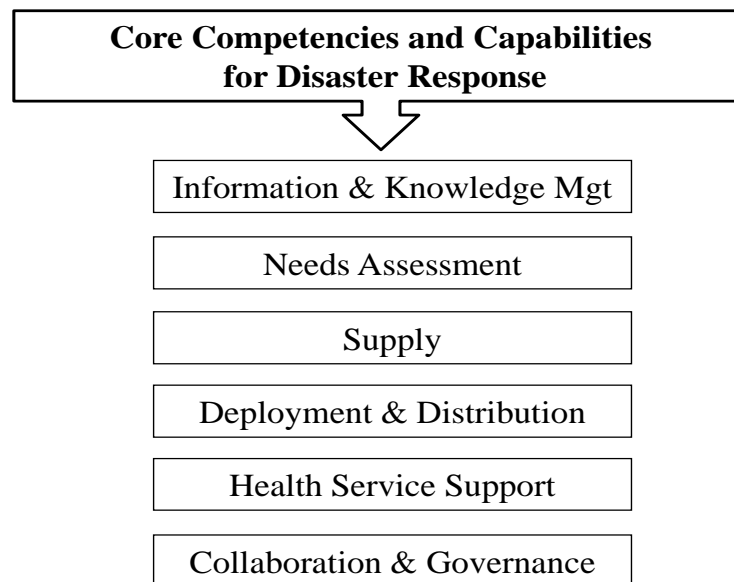


Figure 10. Core Competencies and Capabilities of Organizations That Participate in Humanitarian Operations (from Apte & Yoho, 2012)

However, the Sphere Project has established four core competencies (see Figure 11) that it considers critical. These must be assessed and, if necessary,

addressed for disaster response to ensure that stable conditions exist for the population to endure and pull through. The core competencies are (1) water supply, sanitation, and hygiene promotion; (2) food security and nutrition; (3) shelter, settlement, and non-food items; and (4) health action (The Sphere Project, 2011, pp. 4–5).

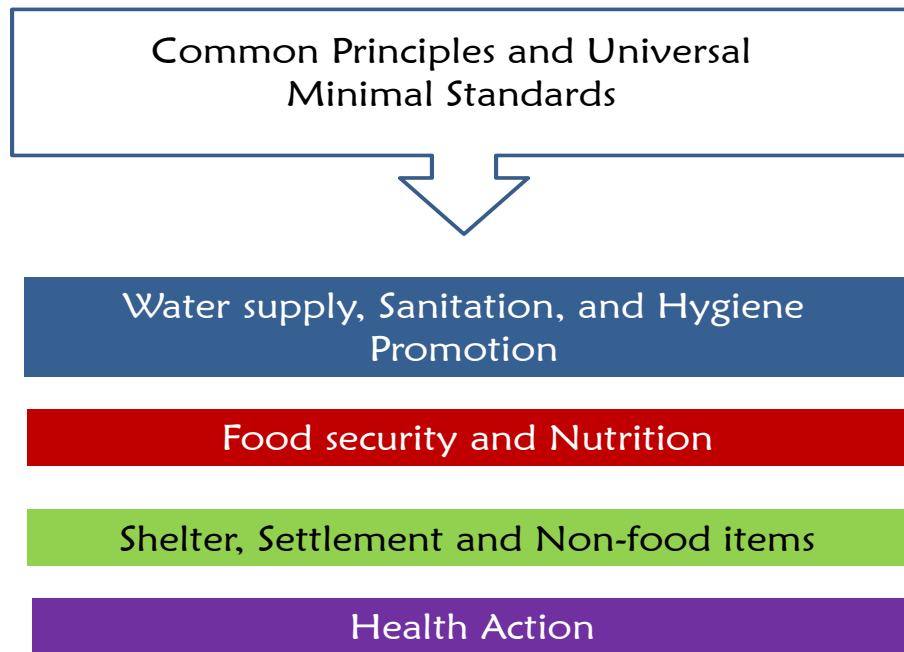


Figure 11. Four Competencies of the Sphere Project

Each competency is evaluated based on specific standards of the functions within the competencies. Each competency has a set of primary functions, and sometimes secondary functions. Each function has detailed standards defined in the Sphere (2011) handbook. We describe these standards through Tables 3–6 for each competency.

Table 3. Water Supply, Sanitation, and Hygiene Promotion (WASH)

Function	Standards
Hygiene Promotion	1. Hygiene promotion implementation 2. Identification and use of hygiene items
Water Supply	1. Access and water quantity 2. Water quality 3. Water facilities
Excreta Disposal	1. Environment free from human feces 2. Appropriate and adequate toilet facilities
Vector Control	1. Individual and family protection 2. Physical, environmental, and chemical protection measures 3. Chemical control safety
Solid Waste Management	1. Collection and disposal
Drainage	1. Drainage work

Table 4. Food Security and Nutrition

Function	Standards
Food Security and Nutrition Assessment	1. Food security 2. Nutrition
Infant and Young Child Feeding	1. Policy guidance and coordination 2. Basic and skilled support
Management of Acute Malnutrition and Micronutrient Deficiencies	1. Moderate acute malnutrition 2. Severe acute malnutrition 3. Micronutrient deficiencies
Food Security	1. General food security

Table 5. Shelter, Settlements, and Non-Food Items

Function	Standards
Shelter and Settlement	1. Strategic planning 2. Settlement planning 3. Covered living space 4. Construction 5. Environmental impact
Non-Food Items: Clothing and Bedding	1. Clothing and bedding
Non-Food Items: Household Items	1. Cooking and eating utensils 2. Stoves, fuel and lighting 3. Tools and fixings 4. Individual, general household, and shelter-support items

Table 6. Health Action

Function	Standards
Health Systems	<ol style="list-style-type: none"> 1. Health service delivery 2. Human resources 3. Drugs and medical supplies 4. Health financing 5. Health information management 6. Leadership and coordination
Essential Health Service	<ol style="list-style-type: none"> 1. Prioritizing health service 2. Communicable disease prevention 3. Communicable disease diagnosis and case management 4. Outbreak detection and response 5. Prevention of vaccine-preventable disease 6. Management of newborn and childhood illness

Based on these competencies, we modified the scorecard model developed by Harper et al. (2013). We assign a score of 2 if the NGO has full capability in the respective core competency, 1 for partial competency, and 0 for no competency or a competency that is not the core competency of the corresponding NGO. Tables 7 and 8 display the capability assessment for each of the four competencies. Table 7 summarizes the assessment for the top-tier NGOs, while Table 8 summarizes the assessment for the second-tier NGOs.

Table 7. Sphere Scorecards of the Top 10 NGOs

NGO	WASH	Food Security and Nutrition	Shelter, Settlement, and Non-Food Items	Health Action
American Red Cross	2	2	2	2
The Salvation Army International	0	0	0	2
Baptist Health South Florida	1	1	0	2
World Vision International	2	2	2	2
Medicins Sans Frontieres	2	0	0	2
Plan International	2	2	0	2
Food for the Poor	0	2	2	1
Catholic Relief Services	2	2	2	2
Care International	2	2	2	0
International Rescue Committee	0	0	0	2

Table 8. Sphere Scorecards of the Next Tier of NGOs

NGO	WASH	Food Security and Nutrition	Shelter, Settlement, and Non-Food Items	Health Action
Rotary International	2	2	2	2
Direct Relief International	0	0	0	2
International Federation of Red Cross and Red Crescent Societies	2	2	2	2
International Relief and Development	2	2	2	2
Habitat for Humanity	0	0	2	0
Project HOPE	1	1	0	2
Mercy Corps International	2	2	2	2
Child Fund International	0	0	2	0
Norwegian Refugee Council	2	2	2	0
Children International	2	2	1	2
Norwegian People's Aid	0	0	0	0
Heart to Heart International	0	0	0	2
Medical Teams International	2	2	0	2

Figures 12 and 13 visually depict the capability scores of the four competencies for each of the NGOs we studied. Figure 12 scores the top 10 NGOs, and Figure 13 scores the next tier of NGOs. These charts represent the Sphere score more realistically because they present a score only if it is 1 or 2. This is of value because an NGO receives a score of 0 if it does not have that particular competency or even if it does have that competency but is not capable.

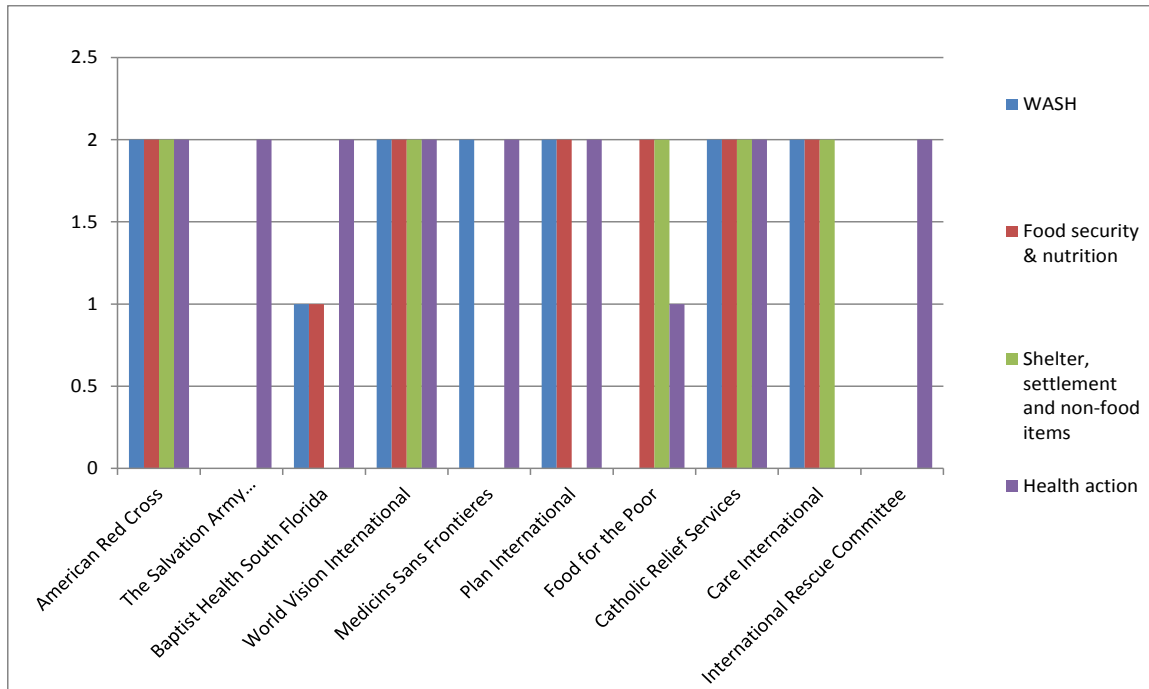


Figure 12. Sphere Scorecard for Top 10 NGOs

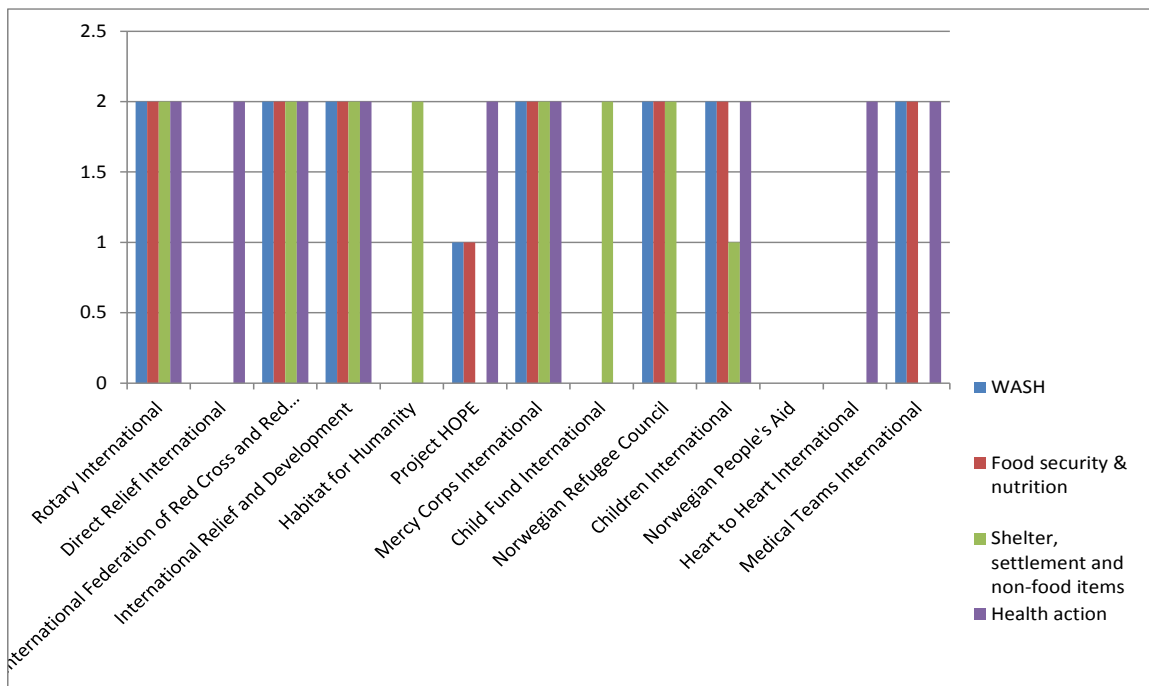


Figure 13. Sphere Scorecard for Next Tier of NGOs

Summary and Future Research

We organized the data on all the NGOs in the areas of responsibility of EUCOM, PACOM, and SOUTHCOM in terms of their total revenues, total expenses,



and service-related expenses. Based on these, we computed their financial efficiency, defined as the ratio between service-related expenses and total expenses. We believe these ratios that determine the efficiency will help the commands understand the financial makeup of the NGOs.

We also organized the data of all the NGOs in terms of their capabilities, as measured by the Sphere Project, in four common principles and universal minimal standards, as described in the report. Based on these principles and standards, we assigned scores and created scorecards for the NGOs. We believe the scorecards describe the efficacy of the NGOs.

Future studies analyzing efficiency will involve the use of econometrics tools to identify possible correlations and causalities. The same could be said about the efficacy of the NGOs. Such studies will help commands better coordinate with NGOs to perform HADR operations. Because this methodology can be replicated for NGOs that were not studied in this project, future studies can be extended to include more NGOs.



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